

REMARKS

Claims 1-4, 6-11, 13-21, 23 and 25-28 were rejected under 35 USC 103(a) as being unpatentable over Siddiqui in view of Gardes.

Claim 1 has been amended to recite “filtering the array image with at least a morphological filter generating only a single corresponding marker image of the background.” Claim 1 further recites “determining a background level by carrying out a reconstruction operation on said single corresponding marker image to generate a corresponding reconstructed image of the background.” Thus, Applicants claim generating only a single corresponding marker image of the background, with the processing of that single corresponding marker image through a reconstruction operation to generate a corresponding reconstructed background image.

On page 2 of the final Office Action, the Examiner asserted that Applicant’s distinction over Siddiqui, which requires the use of two marker images, was not claimed distinctly enough because the asserted claim language focused on a single marker image, but did not prohibit the use of two marker images. Amended claim 1, as now presented, restricts the claim to the generation and processing of only a single marker image in connection with background processing. In combination with the other limitations, Claim 1 is believed to distinguish over the cited prior art.

Dependent claim 6 has been amended to recite “calculating a characteristic value for pixels of a spot by a fuzzy logic algorithm in order to discriminate pixels belonging to foreground and to background.” Applicants had previously asserted a distinction over the cited Gardes reference with respect to making a threshold grey level comparison and the use of fuzzy logic processing, and requested that the Examiner more specifically point out how this claim limitation was met by Gardes. Applicants claim making a foreground versus background discrimination. Gardes teaches subdividing the pixels in a foreground class and in a background class to minimize the intra class variance and maximize the inter class variance (see, col. 8, lines 60-65). However, this process in Gardes does not teach or suggest the use of fuzzy logic processing for calculating a characteristic parameter that can be used in the manner claimed to discriminate pixels as belonging to the foreground and background. The Gaussian distribution of

the grey-level histogram (col. 9, line 5 and equation 5 of Gardes) is well known to those skilled in the art to be different from the claimed fuzzy logic algorithm process (which, for example, may use a Gaussian distributed membership function; see for example claims 8-9). Claim 6 is accordingly believed to distinguish over the cited prior art.

Claims 13 and 15 are asserted to be patentable over the cited prior art for at least the reasons recited above with respect to claims 1 and 6, respectively.

Claims 17 and 21 are asserted to be patentable over the cited prior art for at least the reasons recited above with respect to claim 6. Applicants would further point out that Gardes fails to teach or suggest the use of a fuzzy logic algorithm process (as opposed to a Gaussian distribution of the grey-level histogram, see, col. 9, line 5 and equation 5 of Gardes) in order to discriminate pixels as belonging to foreground and to background.

Claims 25 and 26 are asserted to be patentable over the cited prior art for at least the reasons recited above with respect to claims 6, 17 and 21.

Claim 5 was rejected under 35 USC 103(a) as being unpatentable over Siddiqui in view of Bozinov and Gardes. Claims 11 and 22 were rejected under 35 USC 103(a) as being unpatentable over Siddiqui in view of Bozinov, Gardes and Alessi. These claims are patentable for at least the reasons asserted above with respect to their respective independent claims.

In view of the foregoing, Applicants respectfully submit that the application is in condition for favorable action and allowance.

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Respectfully submitted,

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